

CDI Troubleshooting

Problems with the capacitor discharge system fall into one of the following categories. See **Table 1**.

- a. Weak spark.
- b. No spark.

DC-CDI Unit Testing

Honda does not provide any service specifications for testing the DC-CDI unit. They provide only test procedures for the components within the ignition system and those tests are included in this section.

DC-CDI Unit Replacement

1. Place the vehicle on level ground and set the parking brake.
2. Remove the fuel tank as described under *Fuel Tank Removal/Installation* in Chapter Seven.
3. Remove the front fender assembly as described under *Front Fender Removal/Installation* in Chapter Thirteen.
4. Disconnect the electrical connectors (A, **Figure 11**) from the DC-CDI unit.
5. Remove the DC-CDI unit (B, **Figure 11**) from the rubber isolator attached to the frame.
6. Install a new DC-CDI unit into the rubber isolator and attach the electrical wires to it.
7. Reinstall all items removed.

IGNITION COIL

Removal/Installation

1. Place the vehicle on level ground and set the parking brake.
2. Remove the fuel tank as described under *Fuel Tank Removal/Installation* in Chapter Seven.
3. Disconnect the high voltage lead from the spark plug (A, **Figure 12**).
4. Disconnect the black/yellow electrical wire (B, **Figure 12**) from the black terminal of the ignition coil.
5. Disconnect the green electrical wire (B, **Figure 12**) from the green terminal of the ignition coil.
6. Remove the mounting screw and ground wire and remove the ignition coil (C, **Figure 12**).

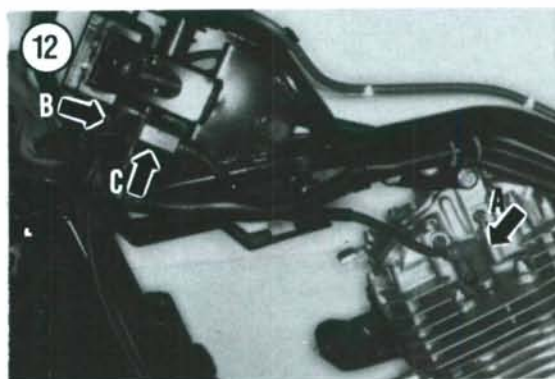
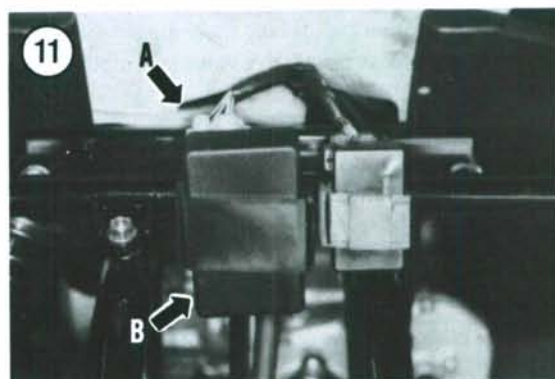
7. Install by reversing these removal steps, making sure all electrical connections are tight and free of corrosion.

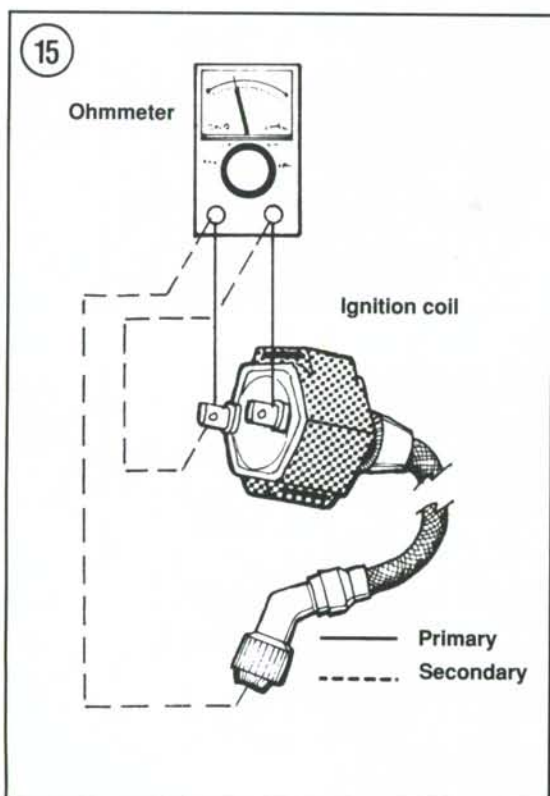
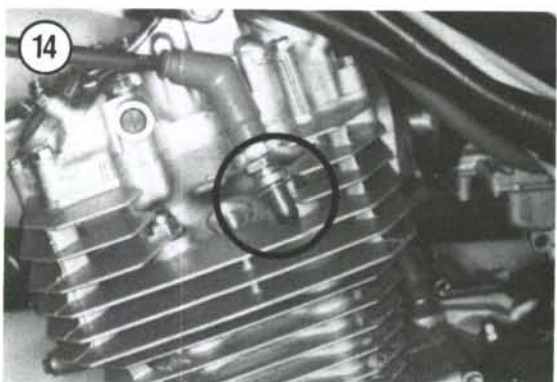
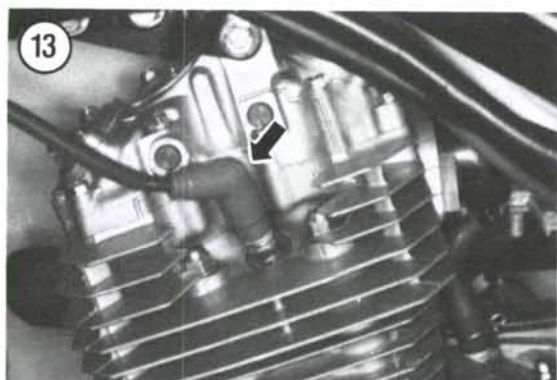
Testing

The ignition coil is a form of transformer which develops the high voltage required to jump the spark plug gap. The only maintenance required is that of keeping the electrical connections clean and tight and occasionally checking to see that the coil is mounted securely.

If the condition of the coil is doubtful, there are several checks which may be made.

First as a quick check of coil condition, disconnect the high voltage lead from the spark plug (**Figure 13**). Remove the spark plug from the cylinder head. Connect a new or known good spark plug to the high voltage lead and place the spark plug base on a good ground like the engine cylinder head (**Figure 14**). Position the spark plug so you can see the electrode.



**WARNING**

If it is necessary to hold the high voltage lead, do so with an insulated pair of pliers. The high voltage generated by the CDI could produce serious or fatal shocks.

Turn the engine over with the starter or kickstarter. If a fat blue spark occurs, the coil is in good condition; if not, proceed as follows. Make sure that you are using a known good spark plug for this test. If the spark plug used is defective, the test results will be incorrect.

Reinstall the spark plug in the cylinder head. Refer to **Figure 15** for this procedure.

NOTE

In order to get accurate resistance measurements, the coil must be at approximately 20° C (68° F).

1. Measure the coil primary resistance using an ohmmeter set at $R \times 1$. Measure the resistance between the 2 primary terminals. The value should be 0.1-0.2 ohms.
2. Disconnect the high voltage lead (spark plug lead) from the spark plug (**Figure 13**).
3. With the spark plug cap still installed to the high voltage lead (spark plug lead), measure the secondary resistance using an ohmmeter set at $R \times 1K$. Measure the resistance between the secondary lead (spark plug lead) and the green terminal on the ignition coil. On 1988-1993 models, the value should be 8,100-10,000 ohms, on 1994-on models the value should be 6,500-9,800 ohms.
4. Remove the spark plug cap from the secondary lead, measure the secondary resistance using an ohmmeter set at $R \times 1K$. Measure the resistance between the secondary lead (spark plug lead) and the green terminal on the ignition coil. On 1988-1993 models, the value should be 3,600-4,500 ohms, on 1994-on models the value should be 2,700-3,500 ohms.
5. Install the spark plug cap onto the secondary lead. Make sure it is on tight.
6. If the coil resistance does not meet either of these specifications, the coil must be replaced. If the coil exhibits visible damage, it should be replaced.

7. Reconnect all ignition coil wires to the ignition coil.

IGNITION PULSE GENERATOR

Inspection

NOTE

In order to get accurate resistance measurements, the unit must be at approximately 20° C (68° F).

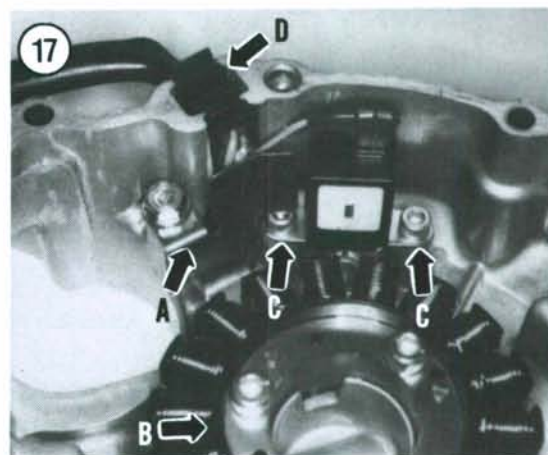
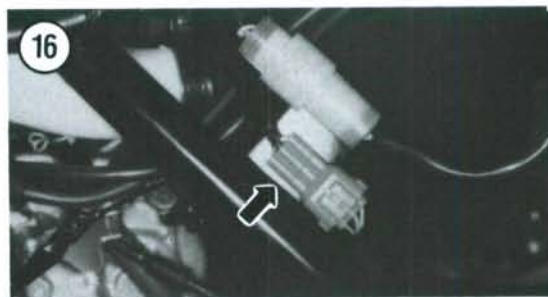
1. Place the vehicle on level ground and set the parking brake.
2. Remove the rear fender as described in Chapter Thirteen.
3. Disconnect the electrical connector (containing 3 wires—one blue/yellow, one light green and one blue) from the ignition pulse generator (**Figure 16**).
4. Use an ohmmeter set at $R \times 100$ and measure the resistance between the blue/yellow and ground. The specified resistance is 290-360 ohms.
5. If the resistance reading is far beyond specifications, perform the following:
 - a. Remove the left-hand crankcase cover as described under *Left-hand Crankcase Cover Removal/Installation* in Chapter Four.
 - b. Disconnect the electrical connector from the pulse generator terminal (**Figure 16**).
 - c. Use an ohmmeter set at $R \times 100$ and measure the resistance between the pulse generator terminal and ground. The specified resistance is 290-360 ohms.
 - d. If the resistance is within specifications, inspect the wiring harness from the left-hand crankcase cover and the electrical connector tested in Step 3. Install the left-hand crankcase cover.
6. If the coil resistance does not meet the specification in Step 4 or Step 5, or there is no continuity (infinite resistance) the unit is bad and must be replaced as described in this section.
7. Apply Dielectric Compound (available from a Honda dealer) to the electrical connector prior to reconnecting it. This will help seal out moisture.

8. Make sure the electrical connector is free of corrosion and is completely coupled.

9. Install the rear fender.

Replacement

1. Remove the left-hand crankcase cover as described under *Left-hand Crankcase Cover Removal/Installation* in Chapter Four.
2. Remove the bolt securing the wire clamp (A, **Figure 17**) and remove the clamp.
3. Remove the bolts securing the alternator stator (B, **Figure 17**) to the crankcase cover.
4. Remove the bolts (C, **Figure 17**) securing the pulse generator to the crankcase cover.
5. Carefully pull the wiring harness and rubber grommet (D, **Figure 17**) out of the crankcase cover and remove the stator assembly.
6. Release the pulse generator wire (A, **Figure 18**) from the clamp on the pulse generator (B, **Figure 18**).



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